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ABSTRACT

The benefits for students of English as a second language of reading abstracts are considered, and the functions and types of abstracts are reviewed. In addition, the results of a survey of Ben Gurion University (Israel) lecturers regarding their reading habits and use of abstracts are briefly addressed. It is suggested that when abstracts are reproduced together with the article, they can be used in the classroom as advanced organizers. For the abstract that follows the structure of the article exactly, two types of activities may be undertaken: asking the student to find and outline the corresponding sections in the article, and forcing the student to read between the subtitles. An example of how to break down the structure of an abstract and relate it to the article is presented: Abstracts can also be used in isolation as cohesive and coherent texts in their own right. For instance, since abstracts are short texts, several abstracts on related topics can be studied in much less time than it would take to read one entire article. In planning the curriculum, it is proposed that abstracts can be used on all levels. For the lower level class, short or indicative types of abstracts can be used. For the intermediate level, longer, informative types are useful, and for the advanced levels, the critical abstract is appropriate. Appended material includes sample abstracts, information on the organization of the abstract, classifications of introductory and concluding lines, a list of journals with abstracts, an example of an ideal abstract, and results of the faculty attitude questionnaire. (SW)

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TEACHING EFL STUDENTS TO EXTRACT STRUCTURAL INFORMATION FROM ABSTRACTS

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INTERNATIONAL SYMPOSIUM ON LSP -- Eindhoven, The Netherlands

August 2-4, 1982

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I hope no one will be offended by the following paraphrase of the Book of Genesis, Chapter I, which I came across in last August's New England Journal of Medicine. I think it states the PROBLEM clearly and hopefully my paper will suggest a possible SOLUTION.

PREFACE

> In the beginning was the General Scientific Journal. And the General Scientific Journal begat the Specialty Journal, and the Specialty Journal begat the Subspecialty Journal. And the Subspecialty Journal begat the Single-Subject Journal, whether according to class of compound, specific disease, or methodology. And the Single-Subject Journal begat the Interdisciplinary Journal to link up the specialties separated at an earlier evolutionary date. And the Scientific community saw that the Journals were GOOD, and they were fruitful and multiplied. So the National Journals (e.g., British, American, and Canadian) begat the Supranational Journals (e.g. European and Scandinavian). And the Supranational Journals begat the International Journals of many of the subjects catalogued thus far. And the whole scientific literature became overweight, unreadable, and impossible to collate, and therefore the scientists looked at the situation and saw that it was BAD. And so they created other journals to help them, and they called these journals Progress, Review, Advances, and Abstract Journals. And the General Abstract Journal begat the Specialist Abstract Journal... [1]

INTRODUCTION

What Dr. Berry wrote about the medical profession is probably true of all fields. He concluded his article by writing that if we do not retrace the steps of evolution "the most important entry requirement for future medical students will have to be proficiency in speed reading." Certainly anything that helps the overburdened academic cope with his backlog of journals and reading load is welcome. In our most Advanced EFL classes we have trained our students to read holistically and purposefully. Much of their drill work centers on skimming the long article for its superstructure (outline or organization) and its macrostructure (main idea or topic).[2] The abstracts that accompany many of these journal articles can also be read purposefully and holistically by these university students to help them cope with their ever-mounting list of required reading.

Although the primary function of abstracts is to indicate and predict the structure and content of the text which follow them, they function as an independent type of discourse as well.[3] Because they are discourses in their own right they are expected to be both cohesive and coherent.[4] The student cum reader should be able to identify their macrostructures; they should recognize their parts and be aware of the signals which indicate new sub-topics.

HANDOUTS

(Page one) On page one I have described the ideal abstract--its purpose, the different types and the language used. The word "abstract" comes from the Latin abstractus, to draw from or separate, and Webster defines it as "that which concentrates in itself the essential qualities of a larger thing or of several things." The three major types of abstracts are the informative, the indicative (or highlight type) and the critical. This paper is concerned primarily with the informative type, such as is usually found in scholarly journals. Informative abstracts should follow the exact order of the article's organization; they should be close to the author's language and should not criticize the article.; they should summarize enough so that the reader can decide whether to read the article or not.

(Page two) On page two of the handout you can see the various ways of perceiving the superstructure of the abstract. It can be divided into 3-6 sections with four being the most common way of division. These parts are the problem, methods, results and conclusion.

(Pages three through five) Pages three through five include sample informative abstracts photostated from the original medical journals in which they appeared.

(Pages six and seven) I focused my attention on the features of discourse used and located in the introductory and concluding parts of the abstract. This data which I have organized for you is derived from 87 samples of abstracts found in 41 arbitrarily selected scholarly journal articles listed on pages six and seven: eight of the journals are from the health sciences
13 from the social sciences
5 from education
and 15 from the humanities.

The numbers are less balanced than they appear. The fifteen humanities journals are disproportionate to the total number of humanities journals which actually have abstracts. Relatively few humanities journals have abstracts. Since I hypothesized this, I looked at a greater sampling to find as many as I did. The remaining twenty six were selected on a random basis.

DISCUSSION OF DATA

If you look at the data on page eight you will see that the major categories of INTRODUCTORY SENTENCES are syntactic-grammatical and semantic rhetorical:[5]

1) the first two groups are those which use the passive construction or the perfect tense to introduce the topic, procedure or problem in the opening sentence;
2) the third and fourth groups are those with a thesis statement in the opening sentences or delayed until later; and the fifth grouping is those sentences which allude to authority, either to be rejected or else accepted.

Following these five categories are combinations. The first five categories add up to 105 items--an excess of 18 over the 87 samples, which can be accounted for by the practice of double-counting. I did not isolate the combinations which occurred--thus a perfect + delayed thesis combination will be listed twice and an allusion to authority + pefect + delayed thesis statement will be listed three times. There were sixteen such instances of double counting.

The language of CONCLUSION is classified on page nine. The language of conclusion is not as neatly represented in the abstract as is the language of introduction. Conclusions are harder to locate; they may not appear in the abstract even if there is a conclusion in the article. Conclusions seem to have two major functions:[6]

1) to physically conclude, that is to finish by closing or by summarizing; and
2) to serve transitionally to take the reader out of the article into the world via suggestion, questions, implications etc. thus creating relevance.[7]

(CONCLUSION: TYPE A) When the purpose of the conclusion is to physically conclude, the language is more forceful and therefore I have referred to it as CLOSED or ABSOLUTE. For example:

> No x's were found.
> Finally...
> This study concludes with...
> This rather than that is responsible for...

Also, the simple present and past tenses are used--and the conclusion is often simply a SUMMARY.

(CONCLUSION: TYPE U) When the purpose of the conclusion is to leave the reader with some thoughts the language is less certain and therefore I have called it OPEN or UNCERTAIN. There are qualifications, suggestions, questions. Doubts are expressed; the conditional tense is used. For example:

> No Z's were found suggesting...
> Subsequent analysis revealed...
> It is likely that...

The modals "could", "would" and "should" appear frequently. "It appears", "it seems" are also favorites.

The data on conclusions written in forceful language are classified as TYPE A, and those which express qualification, TYPE U. In my analysis of Type A I found that 15 out of 24 (62%) had Type U conclusions in the article proper. This indicates a fault in the abstract and also shows that most conclusions in articles are of Type U. Another fault in the abstract is that a considerable number of abstracts have the statement of purpose or the organizing principle in the last sentence. This is included in my data under "descriptive mode". This seems to show that abstracts are not completely reliable predictors.[8]

PEDAGOGICAL IMPLICATIONS

What do the Specialists think? -- Results of a Questionnaire

I'd like to move on to the pedagogical implications of my data and see if and how abstracts can be used in the classroom. First turn to page ten of the handout to see the results of a questionnaire I sent out to lecturers at Ben Gurion University. I questioned the lecturers on their reading habits--the type and amount of journal reading they do; the reason why they read; the quality of their reading; whether their journals include abstracts; if so, are they dependent on abstracts in their reading of journals. They were also asked if they felt students should be encouraged to read abstracts and if students should be taught how to read and use them. 24 out of 28 responded:

> The humanities lecturers responded that most of their journals did not include abstracts and some indicated that none of their journals had abstracts; they did not personally use them and didn't feel students should be taught how to read them.
> The social scientists responded that most to all of their journals included abstracts--five of them were dependent on abstracts and ranged from positive to neutral in their attitude about students' use.
> The scientists and health scientists responded that most to all of their journals included abstracts; all of them used abstracts and were extremely positive in their attitude about teaching students how to use them.

This of course is a very small sample. I'm convinced however that there is a trend here; namely that there is a high correlation between those disciplines in which abstracts appear in journals and lecturers' dependency on abstracts in general and their belief that students should be taught how to read abstracts. The implication of course is that those of us who teach social science, science and health science students should certainly consider including some abstract study in the EFL reading class.

Let's take some of the abstracts on pages three to five into the classroom.

Convincing the Student

The EFL teacher who wants students to read abstracts has to overcome their resistance. The student might not want to use #4 because the language is dense or #1 and #8 because of its professional lexis; #6 may appear too short to even bother reading for gist and structure. However if the student learns to decode the superstructure of the abstract he might be encouraged to use it as a starting point rather than a skipping point. For instance the student who wants to know what the experimental procedure is can be alerted to the pattern "the X, Y and Z was studied in the A, B and C..." which re-occurs in abstracts #1, #2, #4, #8 and #12. If he wants to know quickly about the benefits of a particular program or drug, get him to locate and read the concluding sections of the abstract as in #3, #11, and #12. Therefore, we can argue that the abstract is a time saving device that can be used to find a particular part of the article without reading it all; that knowing the structure in advance will help the reader to get into the article and finally that as a summary of the article it can serve as a review or as a clue to the contents. Ultimately, if comprehensive enough, it might replace reading the article.

Practical Considerations for the Teacher

Abstracts can be used in the classroom in two ways: with or without the article.

A. If they are reproduced together with the article, they can be used as advanced organizers. Exercises should be developed which require the student to delve into the article. The abstract itself can be outlined into parts and these parts should then be matched with their counterparts in the article. Look at "What Price Victory" on p. 11. Here I have given you some hints as to how you might want to break down the structure of an abstract and relate it to the article following it. Here is an example of an abstract that follows the structure of the article exactly. The introduction in the abstract establishes the field and states the author's thesis. The body lists several factors (examples) to support the thesis and the conclusion includes a statement of results and the implication of the results.

Look at what I've typed in below the abstract. On p. 129 of the article there is a statement that corresponds to the author's thesis statement in the abstract: "The reality of the world is that sports are politics." Towards the end of this paragraph there is a repetition of the same idea: "Wherever one looks, sports serve as a tool of politics in one form or another." At the end of the introduction we have the following sentence: "The list of examples is endless." The body of the article has excellent subtitles which are listed on your handout.

In the conclusion (last paragraph) on p. 140 the writer states: "Recognition of this fact may bring about the limitation of some of the excesses of political action which have occurred in the past, such as..."

Here we have a clear cut and simple organization in the article which corresponds to the abstract. Two types of activities come to mind: 1) those which make the student find the corresponding sections--to make a complete outline and 2) those which force the student to read between the subtitles. The steps might be as follows:

a. Outline the abstract into its parts.
b. Match the article with its parts in the abstract.
c. Decide whether you need to read the article or not.
d. If you decide to read, use the abstract as a basis of creating an expanded outline.
e. Use the article to flesh out your outline.

Concepts or vocabulary items that are unclear in the abstract to the student can be clarified by referring to the article and if any unclarity remains the student can continue his search, either in dictionaries or in his reference material. He may realize that certain concepts are assumed by the author to be understood by his audience and that this article is therefore too difficult for him at this stage; or he may simply have to face the fact that knowledge is never total--some parts can only be intuited.

B. Abstracts can also be used <u>in isolation</u>: as cohesive and coherent texts in their own right.. Here too the possibilities for use in the classroom are endless:

1. Since abstracts are short texts, several abstracts on related topics can be studied in much less time than it would take to read one entire article. For instance, abstracts #4, #5, #7, #8 and #9 lend themselves nicely to a discussion on different polluting agents in modern society and abstracts #1, #3, #6, #10 and #11 to the impact of public and private health programs on children and the elderly. In addition to comparing the basic argumentation of each, the students should decide which one to read on the basis of his purpose for reading; also are any too difficult for him--and why?
2. The text of the abstract can be analyzed by reference to the title. How does the abstract expand the title?
3. Major vocabulary items and concepts can be isolated and discussed.
4. Students can try to predict how different ideas will be developed in the article. What type of detail will be used by the author to support his major points?
5. The structure of several can be analyzed.
6. Finally, the student can choose what he would like to read; or what he needs to read and then go to the library to read what he has chosen.

<u>Curriculum Planning: Selecting Abstracts: Devising Syllabi</u>

If you like what I've been saying until now, you might want to start thinking of planning your curriculum to include the use of abstracts. Since time is short I will give some brief hints. First of all I feel that abstracts can be used on <u>all</u> levels. For the <u>lower</u> level class, choose short or indicative types of abstract of the problem-solution type (as described in the middle of page one). For the <u>intermediate</u> level, choose the longer, informative types which follow the structure of the article fairly closely. For the <u>advanced</u> levels choose

the critical abstract, or informative types which don't necessarily follow the structure. Within each level you can move from the simple to the more complex--simple abstracts being where the abstract clearly follows the patterns I've isolated; and complex where the student might have to search for the organization of the abstract--and where he might not necessarily find it.

CONCLUSION

I implied in my introduction that skilled readers of abstracts can cut their reading load. I maintain that this is true--yet is the abstract a reliable tool? Does it consistently guide the reader to the structure and content of the article? As we have seen the answer will have to be a qualified one--to a certain degree! Van Dijk and Widdowson have pointed out that communication and discourse are imprecise and incomplete representations of real affairs and exact meaning is not recoverable from texts even when scrutinized in detail.[9] The abstract is one step further removed from reality; both in the amount of information it conveys and in its lack of specificity. If the reader is aware of the communicative constraints of the abstract he will be able to benefit from using it as a tool to aide him in his goal of purposeful reading.

As for the good doctor--the one I referred to in the beginning who described the inflation of journals as being out of hand--and who wrote that he can survey carefully fewer than ten journals per month--I would prescribe that he read his abstracts carefully. Then he might stay on top of his load of journals. The journal explosion is here to stay. The question of its being GOOD or BAD is irrelevant. We have to learn to cope with it and help our students to do so as well.

NOTES

1. Elliot M. Berry, "The Evolution of Scientific and Medical Journals," New England Journal of Medicine (August 13, 1981) 305:7; 400-402.
2. Teun A. Van Dijk, Macrostructures, Hillsdale (New Jersey), 1980.
3. Ibid., pp. 100-101.
4. M.A.K. Halliday and R. Hasan, Cohesion in English, London, 1976.
5. but see: H.G. Widdowson, "The Deep Structure of Discourse and the Use of Translation," Explorations in Applied Linguistics, London, 1979, 101-111.
6. but see: Myrna Gopnik, "Syntactic Structures in Texts," Linguistics Structures in Scientific Texts, The Hague, 1972, 72-88.
   and: Van Dijk, 111 who writes as follows: "conclusion categories contain the following kinds of information: (1) conclusions in the strict sense; (2) closing; (3) summaries; and (4) decisions for future discourseoor action."
7. Van Dijk, "Relevance Assignment in Discourse Comprehension," Macrostructures, 249-252.
8. Gopnik, 23 states that: "Texts without this container sentence /last sentence of a controlled experiment text/ are incomplete....they must provide a sentence of this type even if it only reiterates the findings reported in the previous part of the text."
9. Van Dijk, "Completeness and Levels of Description in Discourse," Macrostructures, 91-94.
   and: Widdowson, "The Process and Purpose of Reading," Explorations, 174.

HANDOUTS

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Naomi Graetz

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INTERNATIONAL SYMPOSIUM ON LSP -- Eindhoven, The Netherlands
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Naomi Graetz
Ben Gurion University

TITLE OF ARTICLE: What Price Victory? The World of International Sports and Politics
Author: Andrew Strenk Source: Annals, 1980; pp.128-140

Abstract on p. 128

ABSTRACT: Public opinion and the news media in the United States have generally assumed that sports and politics are separate entities and should be kept that way. However, this has not been the case throughout history. The tremendous emphasis which many nations today place on winning at international events such as the Olympics is due to several factors. Those nations spending millions of dollars on sports programs for elite athletes expect results. Sport can be a very useful political and diplomatic tool and weapon in gaining prestige, protesting various situations, spreading propaganda, and in recognizing or isolating another nation. There is a long tradition of mixing sports and politics which dates all the way back to the ancient Greeks. The development of the Turner movement in the German states of the 19th century, the rise of the Sokol movement in neighboring Bohemia, and the formation of the International Olympic Committee by Baron Pierre de Coubertin later in the same century all served to reinforce earlier traditions linking sports to politics. The result of these developments was to produce a war without weapons. The recognition of this fact is the first step towards limiting some of the most aggressive conflicts which have increasingly plagued modern international sports events.

p. 129 "The reality of the world is that sports are plitics"
"Wherever one looks, sports serve as a tool of politics in one form or another"
"The list of examples is endless.

SUBTITLES (INTRODUCTION WITHOUT SUBTITLE)

East Germany: leader in sports politics (129)
The Soviet Union and sports (130)
ANCIENT TRADITIONS (131)
The Greeks
The Intervening ages
EAST EUROPEAN TRADITION (134)
The Turner Movement
The Sokol Movement
The workers' sports movement
THE BRITISH TRADITION: SEPARATING SPORT AND POLITICS (137)
Baron Coubertin and the Olympic Movement
CONCLUSION: WAR WITHOUT WEAPONS (139)

p. 140 "Recognition of this fact may bring about the limitation of some of the excesses of political action which have occurred in the past, such as..."

NAOMI GRAETZ--BEN GURION UNIVERSITY

RESULTS OF ATTITUDE QUESTIONNAIRE

FACULTIES	LECTURERS	DISCIPLINES	JOURNALS WITH ABSTRACTS	USE(DEPENDENCY	ATTITUDE
Humanities	9	history bible hebrew english philosophy literature linguistics	most don't to none	none	neutral to negative
Social Science	7	social work psychology education sociology anthropology	most to all	five (out of 7)	positive to neutral
Science + Health	8	chemistry biology mathematics geography = geology medicine	most to all	all	extremely positive

ORGANIZATION OF CONCLUDING LINES INTO CATEGORIES

TYPE A: CLOSED-ABSOLUTE	SAMPLES	NO.	PERCENT
Present tense; affirmative	The principle of justice is merely one among... The upshot of this procedure is... In English they have...	9	10%
Declarative a)absolute negative	A long-term deterrent effect is not evident from... No study so far has attempted...	5	6%
b)comparisons to prove point	Indeed, X's were rated significantly higher than Y's. When age and ability are considered...the individuals who...are younger and more able than...	6	7%
Function: to close and/or summarize	Names are thus indices of many processes... Finally, I consider... Results showed that...	13	15%
	SUBTOTAL	33	38%
TYPE U: OPEN-UNCERTAIN			
Conditional tense	While some of these regulations may have been... It should become an integral part of... Pursuing the...could therefore help...	6	7%
Qualifications and/or uncertainty	The results...showed...effects...but they are not readily interpretable because... Although some caution is in order...the evidence suggests...	10	12%
Implications	They conclude that their findings raise serious doubts... Implications are considered for a theory... ...the authors believe that the findings provide additional epidemiologic evidence...	17	20%
Function: article leaves reader with thoughts and/or questions	This principle forces a new analysis... Since theories of art are often...we can extend the logic... How may these apparently disparate feelings be reconciled within the framework of...?	11	13%
	SUBTOTAL	44	51%
DESCRIPTIVE MODE: passive,thesis	Anomalies in the programs performance are discussed. This article will trace the development, and will attempt to answer the question why... The results are discussed with respect to previous findings.	16	18%
Overlaps		9	10%

Uncategorized items : 2 out of a total of 87

ORGANIZATION OF INTRODUCTORY LINES INTO CATEGORIES

CATEGORIES	SAMPLES	NO.	PERCENT
Passive construction	An analysis of...is employed... Two experiments are reported... Reactions to...were investigated... When asked...people...	22	25%
Perfect tense	The group of babies...have experienced a...drop... The correlation between X & Y has been interpreted... Changing circumstances have created a demand for...	15	17%
Thesis statement in opening sentence	This article describes... We investigated... This paper... The main aim of this essay is...	24	27%
Thesis statement delayed until second, third or fourth sentence	....This paper discussed... ....I will show that... ....This article will trace the development... ....The purpose of this paper is... ....The authors argue that...	22	25%
Allusion to authority (to be rejected or accepted)	It is widely agreed that... Prominent specialists have... In the early 1970's... Kohlberg's...theory...postulates...	22	25%
Perfect + delayed thesis statement	Procedures for testing...have required... (two sent)....It is argued that...	3	
Perfect + allusion to authority	Begg among others, has recently argued... Most literary historians have found...	4	
Allusion to authority + delayed thesis	Some recent theorists....This article is designed to show...	5	
Allusion, perfect + delayed thesis	At least since Wirth, social scientists have debated...(one sent)....We argue that...	4	

Uncategorized items : 5 out of a total of 87 (6%)

LIST OF JOURNALS WITH ABSTRACTS (CONTINUED)

31. Psychological Bulletin
32. Quarterly Journal of Economics
33. Quarterly Review of Economics and Business
34. Reading Research Quarterly
35. Research in the Teaching Of English
36. Scientific American
37. Semeia: An Experimental Journal for Biblical Criticism
38. Social Casework: The Journal of Contemporary Social Work
39. Social Work
40. Sociological Quarterly
41. Style

REPRESENTATIVE LIST OF JOURNALS WHICH HAVE ABSTRACTS

1. Archives of Environmental Health
2. Archives of General Psychiatry
3. American Journal of Public Health
4. American Journal of Sociology
5. Birth and the Family Journal
6. Glossa
7. Harvard Educational Review
8. Inquiry
9. International Journal of Psycholinguistics
10. International Studies Quarterly
11. Interpretation: A Journal of Bible and Theology
12. Journal of Asian Studies
13. Journal of Educational Psychology
14. Journal of Educational Research
15. Journal of Experimental Social Psychology
16. Journal of Medieval History
17. Journal of Moral Education
18. Journal of Phonetics
19. Journal of Psycholinguistic Research
20. Journal of Reading Behaviour
21. The Lancet
22. Language and Speech
23. Linguistics
24. Man
25. Memory and Cognition
26. New England Journal of Medicine
27. Philosophy of Science
28. PMLA
29. Political Methodology

30. Psychiatry: Journal for the Study of Interpersonal Processes

PARTICIPATION OF COMMUNITY HOSPITALS IN CLINICAL TRIALS

Analysis of Five Years of Experience in the Eastern Cooperative Oncology Group

THE EASTERN COOPERATIVE ONCOLOGY GROUP WRITING COMMITTEE:
COLIN B. BEGG, PH.D., PAUL P. CARBONE, M.D., PAUL J. ELSON, M.S., AND MARVIN ZELEN, PH.D.

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Abstract The Eastern Cooperative Oncology Group (ECOG) initiated a program in 1976 to involve community hospitals in multi-institutional clinical trials. The community hospitals can be characterized as generally having no tradition of participating in clinical trials of cancer therapy, whereas the ECOG member institutions are university hospitals or major treatment centers. More than 100 community hospitals participated in 97 randomized trials involving 4506 patients from November 1976 through February 1981. Comparisons between the community hospitals and the ECOG member institutions indicate that the quality of participation was similar, as measured by rates of ineligibility, compliance with the protocol, and submission of data. Objective measures of outcome, such as survival, response, and toxicity, were also comparable.

We conclude that under the mechanism adopted by the ECOG, it is possible to include community hospitals in clinical trials of cancer therapy without reducing the quality of the data or compromising the therapeutic outcomes. (N Engl J Med. 1982; 306:1076-80.)

SOCIOECONOMIC EVALUATION OF A STATE-FUNDED COMPREHENSIVE HEMOPHILIA-CARE PROGRAM

PETER S. SMITH, M.D., NANCY C. KEYES, R.N., AND EDWIN N. FORMAN, M.D.

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Abstract To assess the effectiveness, cost, and socioeconomic gains associated with a comprehensive state-funded hemophilia program, we compared data from a three-year experience with such a program in Rhode Island with those from the preceding year. Self-treatment, integration of children into school, and achieving satisfying employment of adults are the main goals of the program. During the most recent year, 77 per cent of the patients with severe hemophilia in the state received total care through the Hemophilia Center. Twenty-eight of the 43 patients now treat themselves, the annual number of hospital days per patient has decreased from 12.6 to 3.5, and the number of visits to hospital facilities has fallen from 34 to 2.4, while the yearly cost of clotting factor per patient has remained about $7,000. Altogether, this has saved more than $10,000 each year for treatment, despite the cost of rehabilitative surgery. Numbers of days lost from school and work have decreased twofold and threefold, respectively. Best of all, comprehensive care has vastly improved the quality of life for patients with hemophilia in Rhode Island. (N Engl J Med. 1982; 306:575-9.)

A CLINICAL TRIAL OF AMYGDALIN (LAETRILE) IN THE TREATMENT OF HUMAN CANCER

CHARLES G. MOERTEL, M.D., THOMAS R. FLEMING, PH.D., JOSEPH RUBIN, M.D., LARRY K. KVOLS, M.D., GREGORY SARNA, M.D., ROBERT KOCH, M.D., VIOLANTE E. CURRIE, M.D., CHARLES W. YOUNG, M.D., STEPHEN E. JONES, M.D., AND J. PAUL DAVIGNON, PH.D.

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Abstract One hundred seventy-eight patients with cancer were treated with amygdalin (Laetrile) plus a "metabolic therapy" program consisting of diet, enzymes, and vitamins. The great majority of these patients were in good general condition before treatment. None was totally disabled or in preterminal condition. One third had not received any previous chemotherapy. The pharmaceutical preparations of amygdalin, the dosage, and the schedule were representative of past and present Laetrile practice. No substantive benefit was observed in terms of cure, improvement, or stabilization of cancer, improvement of symptoms related to cancer, or extension of life span. The hazards of amygdalin therapy were evidenced in several patients by symptoms of cyanide toxicity or by blood cyanide levels approaching the lethal range. Patients exposed to this agent should be instructed about the danger of cyanide poisoning, and their blood cyanide levels should be carefully monitored. Amygdalin (Laetrile) is a toxic drug that is not effective as a cancer treatment. (N Engl J Med. 1982; 306:201-6.)

IDENTIFYING THE SOURCES OF THE RECENT DECLINE IN PERINATAL MORTALITY RATES IN CALIFORNIA

RONALD L. WILLIAMS, PH.D., AND PETER M. CHEN, B.A.

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Abstract The perinatal mortality rate in California decreased rapidly in the 1970s; neonatal mortality fell about twice as fast as fetal mortality. Decreases in birth-weight-specific mortality accounted for 81 per cent of the decline in the perinatal rate, with only 19 per cent due to improvements in birth weight. No improvement was observed in the birth-weight distribution for blacks. The decrease in mortality rates was significantly faster for cesarean deliveries than for vaginal births. By 1977, all birth-weight-specific fetal mortality rates for cesarean sections were equal to those for vaginal deliveries or lower. For infants weighing less than 2000 g, perinatal mortality rates were also significantly lower for infants born by cesarean section than for infants delivered vaginally. These results suggest that much of the recent decrease in perinatal mortality rates can be attributed to the advent of neonatal intensive care and the increased rate of cesarean section. (N Engl J Med. 1982; 306:207-14.)

"Carbon Monoxide: A Hazard to Fire Fighters"

AIH - July/Aug 79

ABSTRACT. Carbon monoxide levels were measured in twenty-five fires in the city of Los Angeles to obtain information about fire fighters exposure to carbon monoxide. Levels as high as 3,000 ppm were observed for some fires. In general, when carbon monoxide levels were significantly elevated (> 100 ppm) the smoke was quite heavy and noxious, but in some cases the smoke was heavy and carbon monoxide levels were minimal. In two-story structures, the highest concentrations of carbon monoxide were found on the second-floor level and were usually still elevated after the fire had been "knocked down" but was still smoldering. These data show that fire fighters are exposed to levels of carbon monoxide which could be a serious health hazard and may be related to the high incidence of heart disease in fire fighters.

"Interaction of Carbon Monoxide and Cyanide on Cerebral Circulation and Metabolism"

ABSTRACT. Significant elevations of carboxyhemoglobin and blood cyanide have been found in fire victims. The nature of the interaction of acute exposures to these agents is unclear. This study was undertaken to describe the of cyanide and carbon monoxide—alone and in combination—on the circulation and metabolism of the brain in anesthetized dogs. Cerebral blood flow increased to 130 and 200% of control with elevations in carboxyhemoglobin to 30 and 51% or with elevations in blood cyanide to 1.0 and 1.5 μg/ml, respectively. Cerebral oxygen consumption remained unchanged until the higher level of carbon monoxide or cyanide was reached. When carbon monoxide and cyanide were administered simultaneously, cerebral blood flow increased in an additive manner, but significant decreases in cerebral oxygen consumption occurred at the combination of the lower concentrations. These data suggest that carbon monoxide and cyanide are physiologically additive on producing changes in cerebral blood flow, but may act synergistically on cerebral metabolism.

"The Impact of a Pediatric Practice on ~~Hospital Admissions in a Rural Area~~"

Abstract: The establishment of a two-man pediatric practice in a rural area of New Mexico was followed by a decrease in hospital admissions of children and an increase in average length of stay. While other factors may have been involved, the reliance of the study region's children on pediatricians rather than family physicians for primary care may have contributed to the decline in hospitalization. Further research on the relationship between source of care and hospital utilization is needed. (*Am J Public Health* 1980; 70:1100-1103.)

"Lung Cancer among Pesticide Workers Exposed to Inorganic Arsenicals"

AEH

ABSTRACT. Cancer mortality was studied in 1,393 persons exposed to high air concentrations of inorganic arsenicals for varying lengths of time during the manufacture and packaging of pesticides at a plant in Baltimore, Maryland. Employees consisting of 1,050 males and 343 females were traced for the period 1946 to 1977, and vital status was determined for 86.9% of males and 66.8% of females. The observed number of deaths from all and selected causes was compared with the number expected from the Baltimore City mortality experience in terms of the Standardized Mortality Ratio (SMR). A significantly increased SMR was found for lung cancer and anemias in males. The SMR for lung cancer was especially high in males with presumed high exposure to arsenicals. A dose-response relationship was suggested by the SMR for lung cancer which increased with increasing duration of exposure to arsenicals, but no such relationship was evident for nonarsenicals. Although smoking habits could not be examined in the study subjects, the authors believe that the findings provide additional epidemiologic evidence on the respiratory carcinogenicity of occupational exposure to airborne inorganic arsenicals.

"Cancer Risks Associated with Employment in the Leather and Leather Products Industry"

ABSTRACT

A recent study of relationships between occupation and cancer at Roswell Park Memorial Institute, Buffalo, New York, identified significantly high risks of bladder cancer among men and women with a history of employment in plants manufacturing leather and leather products. Among males, the relative risk increased with duration of employment and remained elevated after adjustment for smoking habits. Among male leatherworkers, significantly increased risks were seen for cancers of the buccal cavity and pharynx and larynx that could not be explained by differences in smoking habits. Malignant lymphomas were also associated with elevated risks among men and women who had worked in the leather industry. Review of processes and agents found in leather manufacture reveals several areas with exposure to potentially carcinogenic materials, including azo and other synthetic dyes that have induced cancer in laboratory animals. Further studies of person employed in the leathermaking and fabrication industries seem advisable to characterize the nature of exposure-response relationships.

AEH Jan/Feb

Life Events, Mental Health Functioning and the Use of Health Care Services by the Elderly

DAN BLAZER, MD, MPH

Abstract: The association of life events and mental health impairment was studied in a community-based population of the elderly (n = 986). A crude estimate of the relative risk for mental health impairment given life events ≥ 150 (as measured by the Schedule of Recent Events) was 2.14. A relative risk of 1.73 ($p < .01$) was estimated when a binary regression procedure was used, controlling for physical health, economic status, social support, and age.

Increased life events were associated with health seeking behavior, even when physical and mental health functioniong were controlled. The associations between increased life events and both mental health functioning and health seeking behavior were small, suggesting that life events, as measured by the Schedule of Recent Events may not be important risk factors for elderly living in the community. (*Am J Public Health* 1980; 70:1174-1179.)

"Influence of Sex and Dietary Calcium on Intestinal Cadmium Absorption in Rats"

ABSTRACT

The influence of sex and dietary calcium on whole-body retention of orally administered $^{115m}CdCl_2$ has a half-life of 43 days, distinguishing it from ^{115}Cd of half-life 2.3 days was studied in one-year-old control and gonadectomized male and female rats. Gonadectomy was performed at the age of four months. Each of the four experimental groups was divided into three subgroups that were fed rat food with a different calcium content (2.4, 0.7, and 0.3% Ca) throughout the experiment. Regardless of sex and gonadectomy the mean percent values of ^{115m}Cd retention in the whole body decreased with increasing dietary calcium level. Male rats retained less cadmium than all other experimental groups of animals. These data clearly point out that sex and diet might influence the level of ingested cadmium in the body.

Nutrition and Cognitive Development among Rural Guatemalan Children

HOWARD E. FREEMAN, PHD, ROBERT E. KLEIN, PHD, JOHN W. TOWNSEND, PHD, AND AARON LECHTIG, MD

Abstract: Women and children from four Guatemalan villages participated in a voluntary food supplementation program for seven years. In two of the villages, they received a vitamin and mineral fortified, high-protein calorie supplement. In the other two villages, the vitamin-mineral fortified supplement contained no protein and a relatively small number of calories.

Cognitive tests were administered regularly to children ages three to seven, and anthropometric measures obtained. In addition, measures of families' social milieu were collected at several points in time.

Using multiple regression analysis, we find that both nutritional and social environmental measures are related to various dimensions of cognitive competence. The results suggest that nutritional intake, independent of social factors, affects cognitive development. There is also some evidence that the children who receive the high-protein calorie supplement (and whose mothers received it during pregnancy and lactation) are more likely to score high in cognitive performance. Our results, while not diminishing social environmental explanations of differences in cognitive function, suggest benefits from nutrition intervention programs in rural areas of lesser-developed countries. (*Am J Public Health* 1980; 70:1277-1285.)

"Effects of Low Levels of Carbon Monoxide on Visions of Smokers and Nonsmokers"

ABSTRACT

The scotopic sensitivity, reaction time, eye movements, and visually evoked cortical potentials of 12 nonsmokers and 6 smokers were measured during the course of 3 hr of exposure both to air and to 200 ppm CO in air. No significant degradation in performance was observed for any of these measures in either group during the course of the exposure.

PARTS OF THE ABSTRACT

Abstracts can have anywhere from 3-6 parts. The most common seem to be those with four parts as described below:

1. PROBLEM: which includes the author's intention, thesis, purpose, hypothesis, objective, goal. Why was the work done; how does his goal differ from others; the reason for doing research; it should not merely rephrase the title.
2. METHOD(S): scope, kind of treatment, data. What was done;what was the methodology used; who did what; what materials, restrictions, limits. It should be brief, state the conditions under which the work was done and the procedure, if unusual. (experimental design)
3. RESULTS: findings, summary of results. The bulk of the abstract should be devoted to results; since it is the most important part, says what is new in the field, it should be the most detailed.
4. CONCLUSIONS: implications, inferences he draws, the value or interest of findings; interpretation of results; what may be concluded.

Other ways of organizing abstracts are as follows:

1. Objectives	1. Objectives	1. Objectives
2. Purpose	2. Methods	2. Methods
3. experimental Design	3. Results	3. Results
4. Methods		4. Validity of Results
5. Results		5. Conclusions
6. Conclusions		6. Applications

SOURCES

Amer. Journal of Public Health. Feb.1981,vol.71,2; p. 188.

Collison, Robert. Abstracts and Abstracting Services. American Bibliographical Center, 1971.

Maizell, Robert E. et al. Abstracting Scientific and Technical Literature. John Wiley and Sons, 1971.

Mitchell, John H. Writing for Professional and Technical Journals. Wiley and Sons,1968.

Whatley, H. Allan. A Survey of the Major Indexing and Abstracting Services for Library Science and Documentation. Library Association, 1966.

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DESCRIPTION OF AN IDEAL ABSTRACT

It should be a continuous narrative, written in whole sentences. It should not use separate paragraphs for the commonly recurring features of problem, summary, introduction, method, etc. It should reflect the organization of the article, by following the exact order if possible. It should provide more information than the title. The title should not be repeated. The abstract should be brief, not waste words, yet be long enough to convey the author's concept. It should be non-critical, unbiased; it is not a review. It should be unambiguous, intelligible, readable and a complete item in its own right. It should be written in the author's own language (as far as possible.)

PURPOSE OF THE ABSTRACT

It will give the reader an exact and concise knowledge of the total content of the very much more lengthy original, a factual summary which is both an elaboration of the title and a condensation of the report; so that he can judge whether he needs to consult the full text. It therefore points out what is NOT of interest and what NOT to read. In fact, the majority of readers of abstracts do not read the original article. (Collison, p. 13) It can also draw to the reader's attention points that had escaped him when he first read the complete item.

TYPES OF ABSTRACTS

Although the accepted view is that the abstract be non-critical, alot depends on whom the target audience is and on the content. Abstracts can be of different types: informative, indicative and critical.

INFORMATIVE: which informs the reader of the salient features, research and findings; tests described; results summarized etc. , as is being generally described in my paper.

INDICATIVE: which is a brief description to understand the general nature and scope of the original without going into a detailed step by step account of what it is about; It is easy reading--uses breezy language and is often written in large type. It often appears as part of the table of contents. It is also known as a descriptive abstract, highlight, micro- or mini-abstract. An example of one is as follows:

title--"Invasion of Privacy"
abstract--Reasons for Census Bureau data collection and methods to insure privacy are briefly described.

CRITICAL: which are not only a description of content, but also an evaluation of work and the way it is presented. Two examples of critical abstracts are:

"This paper was written to impress rather than to inform..."
"This rather wordy paper describes..."

In practice the distinction between informative and indicative abstracts blurs, since the abstract usually matches the structure and the organization of the article and/or the style demanded by a particular journal.

LANGUAGE OF THE ABSTRACT

The abstract is characterized by the use of past tense, third person, passive, and the non-use of negatives. It avoids subordinate clauses, uses phrases instead of clauses, words instead of phrases. It avoids abbreviation, jargon, symbols and other language shortcuts which might lead to confusion. It is written in tightly worded sentences, which avoid repetition, meaningless expressions, superlatives, adjectives, illustrations, preliminaries, descriptive details, examples, footnotes. In short it eliminates the redundancy which the skilled reader counts on finding in written language and which usually facilitates comprehension.